WHAT IS CLAIMED:

1. A chimeric molecule suitable for stimulating a tumor specific immune response comprising:

a binding domain capable of specifically binding to a tumor cell associated antigen, and

a chemokine or active fragment thereof, which is associated with the binding domain such that the binding domain remains capable of binding to the tumor cell associated antigen and the chemokine retains activity.

2. The chimeric molecule according to claim 1, wherein the binding domain is an antibody or fragment thereof which specifically binds to the tumor associated antigen.

3. The chimeric molecule according to claim 2, wherein the chemokine or active fragment thereof is linked to the amino terminus of the heavy or light chain of the antibody.

4. The chimeric molecule according to claim 3, wherein the chemokine or active fragment thereof is linked to the amino terminus of the heavy chain of the antibody.

5. The chimeric molecule according to claim 1, further comprising:

a flexible linker or hinge region connecting the chemokine and the binding domain.

6. The chimeric molecule according to claim 1, wherein the chemokine is selected from the group consisting of DC-CK1, SDF-1, fractalkine, lymphotactin, IP-10, Mig, MCAF, MIP-1α, MIP-1β, IL-8, NAP-2, PF-4, and RANTES or an active fragment thereof.

7. The chimeric molecule according to claim 6, wherein the chemokine is RANTES.

8. The chimeric molecule according to claim 1, wherein the binding domain specifically binds to a tumor cell associated antigen from tumor cells selected from the group consisting of breast cancer cells, ovarian cancer cells, lung cancer cells, bladder cancer cells, and prostate cancer cells.

9. The chimeric molecule according to claim 1, wherein the binding domain specifically binds to her2/neu.

10. The chimeric molecule according to claim 1, wherein the tumor cell associated antigen is a cell surface antigen.

11. A gene encoding the chimeric molecule of claim 1.

12. The gene according to claim 11, wherein the gene is functionally linked to a promoter.

13. An expression vector carrying the gene of claim 10.

14. The expression vector according to claim 13, wherein the vector is a viral vector, plasmid, cosmid, or an oligonucleotide.

15. A host cell transduced with the gene of claim 11.

16. A method for stimulating a tumor specific immune response comprising:

contacting the tumor cells in a mammal with the chimeric molecule according to claim 1 under conditions effective to stimulate an immune response.

17. The method for stimulating a tumor specific immune response according to claim 16, wherein said contacting comprises:

administering the chimeric molecule to a mammal.

18. The method for stimulating a tumor specific immune response according to claim 16, wherein said contacting comprises:

introducing a gene capable of expressing the chimeric moleucule into cells of a mammal, and

expressing the chimeric molecule from the gene.

19. The method according to claim 16, wherein the chemokine is selected from the group consisting of DC-CK1, SDF-1, fractalkine, lymphotactin, IP-10, Mig, MCAF, MIP-1α, MIP-1β, IL-8, NAP-2, PF-4, and RANTES or an active fragment thereof.

20. The chimeric molecules according to claim 19, wherein the chemokine is RANTES.

21. The method according to claim 16, wherein the binding domain specifically binds tumor cell associated antigen from tumor cells selected from the group consisting of breast cancer cells, ovarian cancer cells, lung cancer cells, bladder cancer cells, and prostate cancer cells.

22. The method according to claim 16, wherein the binding domain specifically binds to her2/neu.

23. The method according to claim 16, wherein the binding domain specifically binds to a cell surface antigen.

24. The method according to claim 16, wherein said administering is oral, intradermal, intramuscular, interperitoneal, intravenous, subcutaneous, or intranasal.

25. A composition for stimulating a tumor specific immune response comprising:

the chimeric molecule according to claim 1, and

a pharmaceutically-acceptable carrier.

26. A chimeric molecule suitable for stimulating a tumor specific immune response, comprising:

a binding domain capable of binding to a tumor cell associated antigen, and

a costimulatory ligand or active fragment thereof, which is associated with the binding domain such that the binding domain remains capable of binding to the tumor cell associated antigen and the costimulatory ligand retains activity.

27. The chimeric molecule according to claim 26, wherein the binding domain is an antibody or fragment thereof which specifically binds to the tumor associated antigen.

28. The chimeric molecule according to claim 27, wherein the costimulatory ligand or active fragment thereof is linked to the amino terminus of the heavy or light chain of the antibody.

29. The chimeric molecule according to claim 28, wherein the costimulatory ligand or active fragment thereof is linked to the amino terminus of the heavy chain of the antibody.

30. The chimeric molecule according to claim 26, further comprising:

a flexible linker or hinge region connecting the costimulatory ligand and the binding domain.

31. The chimeric molecule according to claim 26, wherein the costimulatory ligand is B7.1 or B7.2.

32. The chimeric molecule according to claim 31, wherein the costimulatory ligand is B7.1.

33. The chimeric molecule according to claim 26, wherein the binding domain specifically binds tumor cell associated antigen from tumor cells selected from the group consisting of breast cancer cells, ovarian cancer cells, lung cancer cells, bladder cancer cells, and prostate cancer cells.

34. The chimeric molecule according to claim 26, wherein the binding domain specifically binds to her2/neu.

35. The chimeric molecule according to claim 26, wherein the tumor cell associated antigen is a cell surface antigen.

36. A gene encoding the chimeric molecule of claim 26.

37. The gene according to claim 36, wherein the gene is functionally linked to a promoter.

38. An expression vector carrying the gene of claim 37.

39. The expression vector according to claim 38, wherein the vector is a viral vector, plasmid, cosmid, or an oligonucleotide.

40. A host cell transduced with the gene of claim 36.

41. A method for stimulating a tumor specific immune response comprising:

contacting the tumor cells in a mammal with the chimeric molecule according to claim 26 under conditions effective to stimulate an immune response.

42. The method for stimulating a tumor specific immune response according to claim 41, wherein said contacting comprises:

administering the chimeric molecule to a mammal.

43. The method for stimulating a tumor specific immune response according to claim 41, wherein said contacting comprises:

introducing a gene capable of expressing the chimeric moleucule into cells of a mammal, and

expressing the chimeric molecule from the gene.

44. The method according to claim 41, wherein the costimulatory ligand is B7.1 or B7.2.

45. The method according to claim 44, wherein the costimulatory ligand is B7.1.

46. The method according to claim 41, wherein the binding domain specifically binds tumor cell associated

antigen from tumor cells selected from the group consisting of breast cancer cells, ovarian cancer cells, lung cancer cells, bladder cancer cells, and prostate cancer cells.

47. The method according to claim 41, wherein the binding domain specifically binds to her2/neu.

48. The method according to claim 41, wherein the tumor cell associated antigen is a cell surface antigen.

49. The method according to claim 41, wherein said administering is oral, subcutaneous, intradermal, intramuscular, intraperitoneal, intrapleural, intravenous, or intranasal.

50. A composition for stimulating a tumor specific immune response comprising:

the chimeric molecule according to claim 26, and

a pharmaceutically-acceptable carrier.

51. A method for stimulating a tumor specific immune response comprising:

contacting the tumor cells in a mammal with the a first chimeric molecule comprising a binding domain capable of binding to a tumor cell associated antigen and a chemokine or active fragment thereof and a second chimeric molecule comprising a binding domain capable of binding to a tumor cell associated antigen and a costimulatory ligand or active fragment thereof under conditions effective to stimulate an immune response.

52. The method for stimulating a tumor specific immune response according to claim 51, wherein said contacting comprises:

administering the chimeric molecules to a mammal.

53. The method for stimulating a tumor specific immune response according to claim 51, wherein said contacting comprises:

introducing genes capable of expressing the chimeric moleucules into cells of a mammal, and

expressing the chimeric molecules from the genes.

54. The method according to claim 51, wherein the chemokine is selected from the group consisting of DC-CK1, SDF-1, fractalkine, lymphotactin, IP-10, Mig, MCAF, MIP-1α, MIP-1β, IL-8, NAP-2, PF-4, and RANTES or an active fragment thereof.

55. The method according to claim 54, wherein the chemokine is RANTES.

56. The method according to claim 51, wherein the costimulatory ligand is B7.1 or B7.2.

57. The method according to claim 56, wherein the costimulatory ligand is B7.1.

58. The method according to claim 51, wherein each or both binding domains specifically bind tumor cell associated antigen from tumor cells selected from the group consisting of breast cancer cells, ovarian cancer cells, lung cancer cells, bladder cancer cells, and prostate cancer cells.

59. The method according to claim 51, wherein each or both binding domains specifically bind to her2/neu.

60. The method according to claim 51, wherein each or both binding domains specifically bind to a cell surface antigen.

61. The method according to claim 51, wherein said administering is oral, intradermal, intramuscular, intraperitoneal, intrapleural, intravenous, subcutaneous, or intranasal.

62. A composition for stimulating a tumor specific immune response comprising:

a chimeric molecule comprising a binding domain capable of binding to a tumor cell associated antigen and a chemokine or active fragment thereof;

a chimeric molecule comprising a binding domain capable of binding to a tumor cell associated antigen and a costimulatory ligand or active fragment thereof; and

a pharmaceutically-acceptable carrier.

63. A chimeric molecule suitable for stimulating a tumor specific immune response, comprising:

a binding domain capable of specifically binding to a tumor cell associated antigen, and

two or more T-cell effectors selected from the group comprising a chemokine or active fragment thereof, a cytokine or active fragment thereof, and a costimulatory molecule or active fragment thereof, which are associated with the binding domain such that the binding domain remains capable of binding the tumor cell associated antigen and the T-cell effectors retain activity.

64. The chimeric molecule of claim 63, wherein the T-cell effectors are a chemokine and a costimulatory molecule.

65. The chimeric molecule of claim 64, wherein the chemokine is RANTES.

66. The chimeric molecule of claim 64, wherein the costimulatory molecule is B7.1.

67. The chimeric molecule of claim 63, wherein the T-cell effectors are a chemokine and a cytokine.

68. The chimeric molecule of claim 67, wherein the chemokine is RANTES.

69. The chimeric molecule of claim 67, wherein the cytokine is IL-2.

70. The chimeric molecule of claim 63, wherein the T-cell effectors are a cytokine and a costimulatory molecule.

71. The chimeric molecule of claim 70, wherein the cytokine is IL-2.

72. The chimeric molecule of claim 70, wherein the costimulatory molecule is B7.1.

73. The chimeric molecule of claim 63, wherein the T-cell effectors are a chemokine, a cytokine and a costimulatory molecule.

74. The chimeric molecule of claim 73, wherein the chemokine is RANTES.

75. The chimeric molecule of claim 73, wherein the cytokine is IL-2.

76. The chimeric molecule of claim 73, wherein the costimulatory molecule is B7.1.